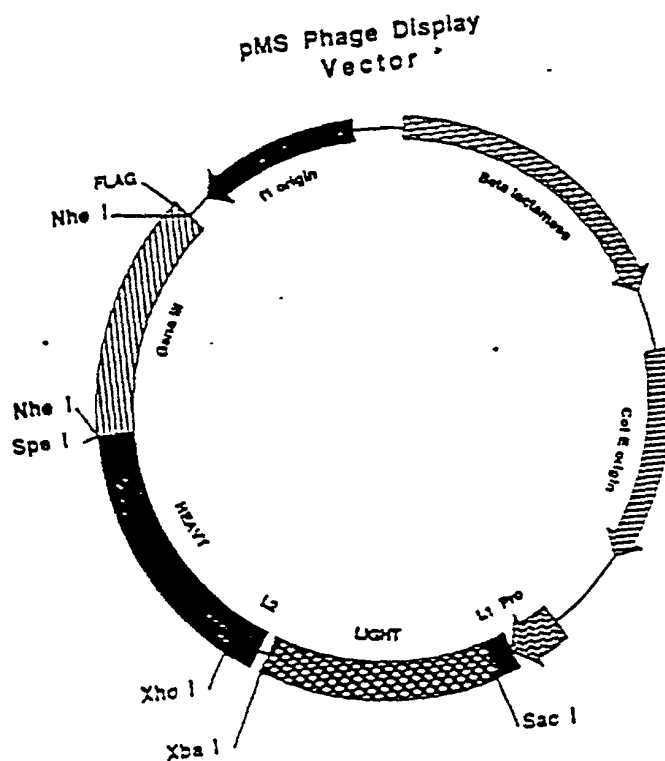


FIGURE 1

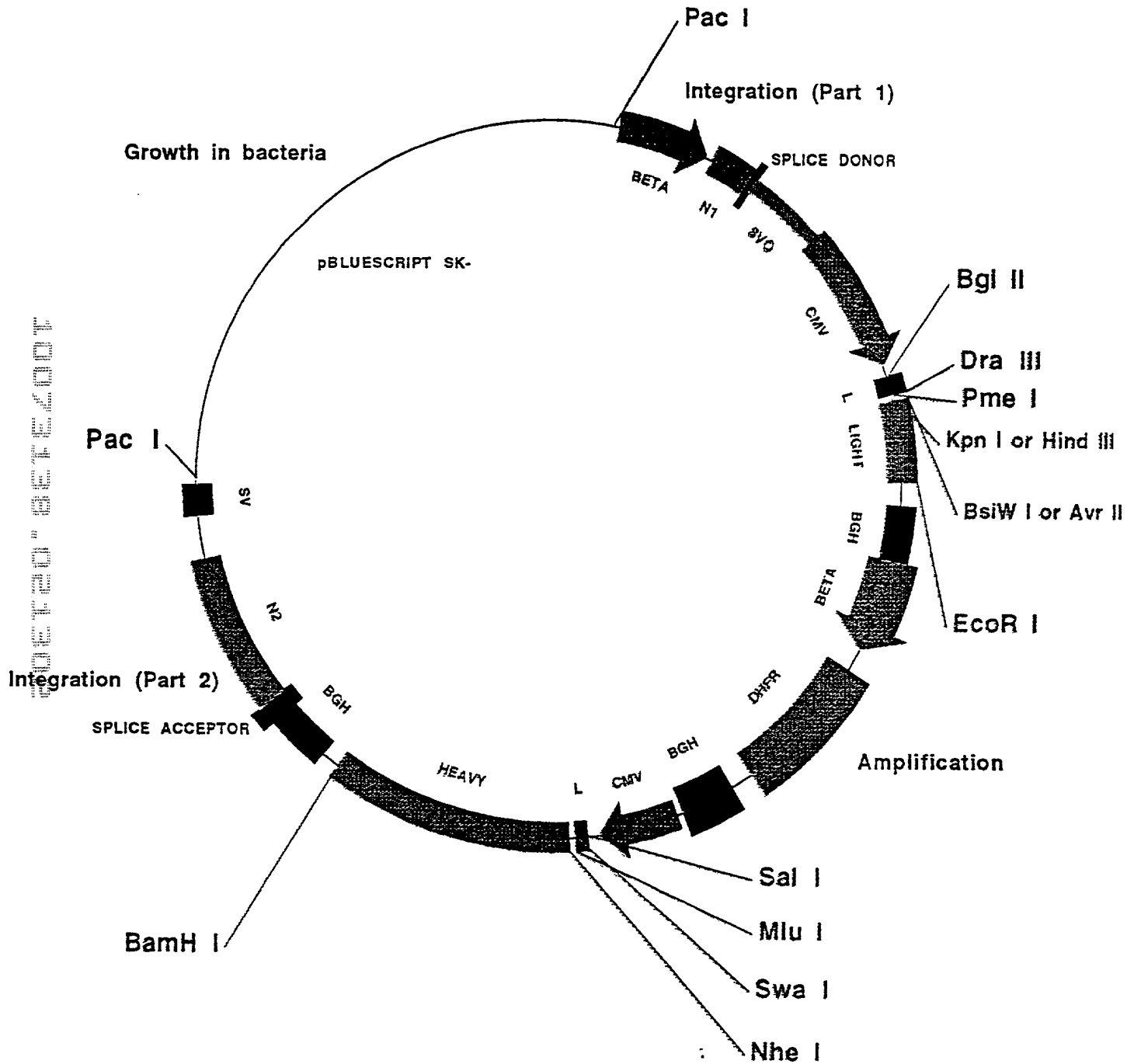
Figure 1: pMS Phage Display Vector. Pro = Lac Z promoter. L1 = Omp A leader. L2 = Pel B leader. Light = light chain. Heavy = heavy chain.



2007-11-23 10:43:00

FIGURE 2

# NEOSPLA



- CMV = Cytomegalovirus promoter/enhancer
- BETA = Mouse Beta globin major promoter
- SVO = SV40 origin
- BGH = Bovine growth hormone polyadenylation
- SV = SV40 polyadenylation
- N1 = Neomycin phosphotransferase exon 1
- N2 = Neomycin phosphotransferase exon 2
- LIGHT = Human immunoglobulin kappa or lambda constant region
- DHFR = Dihydrofolate Reductase
- HEAVY = Human immunoglobulin gamma 1 or gamma 4 constant region

FIGURE 3a

Length of 7C10 light/Primatized: 705 bp; Listed from: 1 to: 705;  
 Translated from: 1 to: 703 (Entire region);  
 Genetic Code used: Universal; Fri, May 26, 1995 11:11 AM

```

Frame 1  M   R   V   P   A   Q   L   L   G   L   L   L   L   W   L   P   G   A   R
          ATG AGG GTC CCC GCT CAG CTC CTG GGG CTC CTG CTG CTC TGG CTC CCA GGT GCA CGA
                   9             18             27             36             45             54

C   A   Y   E   L   T   Q   P   P   S   V   S   V   S   P   G   Q   T   A   R   I
TGT GCC TAT GAA CTG ACT CAG CCA CCC TCG GTG TCA GTG TCC CCA GGA CAG ACG GCC AGG ATC
    63             72             81             90             99             108             117

T   C   G   G   D   N   S   R   N   E   Y   V   H   W   Y   Q   Q   K   P   A   R
ACC TGT GGG GGA GAC AAC AGT AGA AAT GAA TAT GTC CAC TGG TAC CAG CAG AAG CCA GCG CGG
    126             135             144             153             162             171             180

A   P   I   L   V   I   Y   D   D   S   D   R   P   S   G   I   P   E   R   F   S
GCC CCT ATA CTG GTC ATC TAT GAT GAT AGT GAC CGG CCC TCA GGG ATC CCT GAG CGA TTC TCT
    189             198             207             216             225             234             243

G   S   K   S   G   N   T   A   T   L   T   I   N   G   V   E   A   G   D   E   A
GGG TCC AAA TCA GGG AAC ACC GCC ACC CTG ACC ATC AAC GGG GTC GAG GCC GGG GAT GAG GCT
    252             261             270             279             288             297             306

D   Y   Y   C   Q   V   W   D   R   A   S   D   H   P   V   F   G   G   G   T   R
GAC TAT TAC TGT CAG GTG TGG GAC AGG GCT AGT GAT CAT CCG GTC TTC GGA GGA GGG ACC CGG
    315             324             333             342             351             360             369

V   T   V   L   G   Q   P   K   A   A   P   S   V   T   L   F   P   P   S   S   E
GTG ACC GTC CTA GGT CAG CCC AAG GCT GCC CCC TCG GTC ACT CTG TTC CCG CCC TCC TCT GAG
    378             387             396             405             414             423             432

E   L   Q   A   N   K   A   T   L   V   C   L   I   S   D   F   Y   P   G   A   V
GAG CTT CAA GCC AAC AAG GCC ACA CTG GTG TGT CTC ATA AGT GAC TTC TAC CCG GGA GCC GTG
    441             450             459             468             477             486             495

T   V   A   W   K   A   D   S   S   P   V   K   A   G   V   E   T   T   T   P   S
ACA GTG GCC TGG AAG GCA GAT AGC AGC CCC GTC AAG GCG GGA GTG GAG ACC ACC ACA CCC TCC
    504             513             522             531             540             549             558

K   Q   S   N   N   K   Y   A   A   S   S   Y   L   S   L   T   P   E   Q   W   K
AAA CAA AGC AAC AAC AAG TAC GCG GCC AGC AGC TAC CTG AGC CTG ACG CCT GAG CAG TGG AAG
    567             576             585             594             603             612             621

S   H   R   S   Y   S   C   Q   V   T   H   E   G   S   T   V   E   K   T   V   A
TCC CAC AGA AGC TAC AGC TGC CAG GTC ACG CAT GAA GGG AGC ACC GTG GAG AAG ACA GTG GCC
    630             639             648             657             666             675             684

P   T   E   C   S
CCT ACA GAA TGT TCA TGA
    693             702
  
```

FIGURE' 3b

Length of 7C10 heavy/Primatized: 1431 bp; Listed from: 1 to: 1431;  
 Translated from: 1 to: 1429 (Entire region);  
 Genetic Code used: Universal; Fri, May 26, 1995 11:11 AM

Frame 1	M	K	H	L	W	F	F	L	L	L	V	A	A	P	R	W	V	L	S	
	ATG	AAA	CAC	CTG	TGG	TTC	TTC	CTC	CTC	CTG	GTG	GCA	GCT	CCC	AGA	TGG	GTC	CTG	TCC	
			9			18			27			36			45			54		
Q	V	K	L	Q	Q	W	G	E	G	L	L	Q	P	S	E	T	L	S	R	T
CAG	GTG	AAG	CTG	CAG	CAG	TGG	GGC	GAA	GGA	CTT	CTG	CAG	CCT	TCG	GAG	ACC	CTG	TCC	CGC	ACC
	63			72			81			90			99			108			117	
C	V	V	S	G	G	S	I	S	G	Y	Y	Y	W	T	W	I	R	Q	T	P
TGC	GTT	GTC	TCT	GGT	GGC	TCC	ATC	AGC	GGT	TAC	TAC	TAC	TGG	ACC	TGG	ATC	CGC	CAG	ACC	CCA
	126			135			144			153			162			171			180	
G	R	G	L	E	W	I	G	H	I	Y	G	N	G	A	T	T	N	Y	N	P
GGG	AGG	GGA	CTG	GAG	TGG	ATT	GGC	CAT	ATT	TAT	GGT	AAT	GGT	GCG	ACC	ACC	AAC	TAC	AAT	CCC
	189			198			207			216			225			234			243	
S	L	K	S	R	V	T	I	S	K	D	T	S	K	N	Q	F	F	L	N	L
TCC	CTC	AAG	AGT	CGA	GTC	ACC	ATT	TCA	AAA	GAC	ACG	TCC	AAG	AAC	CAG	TTC	TTC	CTG	AAC	TTG
	252			261			270			279			288			297			306	
N	S	V	T	D	A	D	T	A	V	Y	Y	C	A	R	G	P	R	P	D	C
AAT	TCT	GTG	ACC	GAC	GCG	GAC	ACG	GCC	GTC	TAT	TAC	TGT	GCG	AGA	GGC	CCT	CGC	CCT	GAT	TGC
	315			324			333			342			351			360			369	
T	T	I	C	Y	G	G	W	V	D	V	W	G	P	G	D	L	V	T	V	S
ACA	ACC	ATT	TGT	TAT	GGC	GGC	TGG	GTC	GAT	GTC	TGG	GGC	CCG	GGA	GAC	CTG	GTC	ACC	GTC	TCC
	378			387			396			405			414			423			432	
S	A	S	T	K	G	P	S	V	F	P	L	A	P	S	S	K	S	T	S	G
TCA	GCT	AGC	ACC	AAG	GGC	CCA	TCG	GTC	TTC	CCC	CTG	GCA	CCC	TCC	TCC	AAG	AGC	ACC	TCT	GGG
	441			450			459			468			477			486			495	
G	T	A	A	L	G	C	L	V	K	D	Y	F	P	E	P	V	T	V	S	W
GGC	ACA	GCG	GCC	CTG	GGC	TGC	CTG	GTC	AAG	GAC	TAC	TTC	CCC	GAA	CCG	GTG	ACG	GTG	TCG	TGG
	504			513			522			531			540			549			558	
N	S	G	A	L	T	S	G	V	H	T	F	P	A	V	L	Q	S	S	G	L
AAC	TCA	GGC	GCC	CTG	ACC	AGC	GGC	GTG	CAC	ACC	TTC	CCG	GCT	GTC	CTA	CAG	TCC	TCA	GGA	CTC
	567			576			585			594			603			612			621	
Y	S	L	S	S	V	V	T	V	P	S	S	S	L	G	T	Q	T	Y	I	C
TAC	TCC	CTC	AGC	AGC	GTG	GTG	ACC	GTG	CCC	TCC	AGC	AGC	TTG	GGC	ACC	CAG	ACC	TAC	ATC	TGC
	630			639			648			657			666			675			684	
N	V	N	H	K	P	S	N	T	K	V	D	K	K	A	E	P	K	S	C	D
AAC	GTG	AAT	CAC	AAG	CCC	AGC	AAC	ACC	AAG	GTG	GAC	AAG	AAA	GCA	GAG	CCC	AAA	TCT	TGT	GAC
	693			702			711			720			729			738			747	
K	T	H	T	C	P	P	C	P	A	P	E	L	L	G	G	P	S	V	F	L
AAA	ACT	CAC	ACA	TGC	CCA	CCG	TGC	CCA	GCA	CCT	GAA	CTC	CTG	GGG	GGA	CCG	TCA	GTC	TTC	CTC
	756			765			774			783			792			801			810	
F	P	P	K	P	K	D	T	L	M	I	S	R	T	P	E	V	T	C	V	V
TTC	CCC	CCA	AAA	CCC	AAG	GAC	ACC	CTC	ATG	ATC	TCC	CGG	ACC	CCT	GAG	GTC	ACA	TGC	GTG	GTG
	819			828			837			846			855			864			873	
V	D	V	S	H	E	D	P	E	V	K	F	N	W	Y	V	D	G	V	E	V
GTG	GAC	GTG	AGC	CAC	GAA	GAC	CCT	GAG	GTC	AAG	TTC	AAC	TGG	TAC	GTG	GAC	GGC	GTG	GAG	GTG
	882			891			900			909			918			927			936	

FIGURE 3b (Continued)

H	N	A	K	T	K	P	R	E	E	Q	Y	N	S	T	Y	R	V	V	S	V
CAT	AAT	GCC	AAG	ACA	AAG	CCG	CGG	GAG	GAG	CAG	TAC	AAC	AGC	ACG	TAC	CGT	GTG	GTC	AGC	GTC
945				954			963			972			981			990			999	
L	T	V	L	H	Q	D	W	L	N	G	K	E	Y	K	C	K	V	S	N	K
CTC	ACC	GTC	CTG	CAC	CAG	GAC	TGG	CTG	AAT	GGC	AAG	GAG	TAC	AAG	TGC	AAG	GTC	TCC	AAC	AAA
1008				1017			1026			1035			1044			1053			1062	
A	L	P	A	P	I	E	K	T	I	S	K	A	K	G	Q	P	R	E	P	Q
GCC	CTC	CCA	GCC	CCC	ATC	GAG	AAA	ACC	ATC	TCC	AAA	GCC	AAA	GGG	CAG	CCC	CGA	GAA	CCA	CAG
1071				1080			1089			1098			1107			1116			1125	
V	Y	T	L	P	P	S	R	D	E	L	T	K	N	Q	V	S	L	T	C	L
GTG	TAC	ACC	CTG	CCC	CCA	TCC	CGG	GAT	GAG	CTG	ACC	AAG	AAC	CAG	GTC	AGC	CTG	ACC	TGC	CTG
1134				1143			1152			1161			1170			1179			1188	
V	K	G	F	Y	P	S	D	I	A	V	E	W	E	S	N	G	Q	P	E	N
GTC	AAA	GGC	TTC	TAT	CCC	AGC	GAC	ATC	GCC	GTG	GAG	TGG	GAG	AGC	AAT	GGG	CAG	CCG	GAG	AAC
1197				1206			1215			1224			1233			1242			1251	
N	Y	K	T	T	P	P	V	L	D	S	D	G	S	F	F	L	Y	S	K	L
AAC	TAC	AAG	ACC	ACG	CCT	CCC	GTG	CTG	GAC	TCC	GAC	GGC	TCC	TTC	TTC	CTC	TAC	AGC	AAG	CTC
1260				1269			1278			1287			1296			1305			1314	
T	V	D	K	S	R	W	Q	Q	G	N	V	F	S	C	S	V	M	H	E	A
ACC	GTG	GAC	AAG	AGC	AGG	TGG	CAG	CAG	GGG	AAC	GTC	TTC	TCA	TGC	TCC	GTG	ATG	CAT	GAG	GCT
1323				1332			1341			1350			1359			1368			1377	
L	H	N	H	Y	T	Q	K	S	L	S	L	S	P	G	K	.				
CTG	CAC	AAC	CAC	TAC	ACG	CAG	AAG	AGC	CTC	TCC	CTG	TCT	CCG	GGT	AAA	TGA				
1386				1395			1404			1413			1422			1431				

FIGURE 4a

Length of 7B6 light/Primatized: 720 bp; Listed from: 1 to: 720;  
 Translated from: 1 to: 718 (Entire region);  
 Genetic Code used: Universal; Fri, May 26, 1995 11:10 AM

```

Frame 1  M  S  L  P  A  Q  L  L  G  L  L  L  L  C  V  P  G  S  S
          ATG AGC CTC CCT GCT CAG CTC CTC GGG CTG CTA TTG CTC TGC GTC CCC GGG TCC AGT
                   9             18             27             36             45             54

G  E  V  V  M  T  Q  S  P  L  S  L  P  I  T  P  G  E  P  A  S
GGG GAA GTT GTG ATG ACT CAG TCT CCA CTG TCC CTT CCC ATC ACA CCT GGA GAG CCG GCC TCC
   63             72             81             90             99             108             117

I  S  C  R  S  S  Q  S  L  K  H  S  N  G  D  T  F  L  S  W  Y
ATC TCC TGT AGG TCT AGT CAA AGC CTT AAA CAC AGT AAT GGA GAC ACC TTC CTG AGT TGG TAT
   126             135             144             153             162             171             180

Q  Q  K  P  G  Q  P  P  R  L  L  I  Y  K  V  S  N  R  D  S  G
CAG CAG AAG CCA GGC CAA CCT CCA AGG CTC CTG ATT TAT AAG GTT TCT AAC CGG GAC TCT GGG
   189             198             207             216             225             234             243

V  P  D  R  F  S  G  S  G  A  G  T  D  F  T  L  K  I  S  A  V
GTC CCA GAC AGA TTC AGC GGC AGT GGG GCA GGG ACA GAT TTC ACA CTG AAA ATC AGC GCA GTG
   252             261             270             279             288             297             306

E  A  E  D  V  G  V  Y  F  C  G  Q  G  T  R  T  P  P  T  F  G
GAG GCT GAA GAT GTT GGG GTT TAT TTC TGC GGG CAA GGT ACA AGG ACT CCT CCC ACT TTC GGC
   315             324             333             342             351             360             369

G  G  T  K  V  E  I  K  R  T  V  A  A  P  S  V  F  I  F  P  P
GCA GGG ACC AAG GTG GAA ATC AAA CGT ACG GTG GCT GCA CCA TCT GTC TTC ATC TTC CCG CCA
   378             387             396             405             414             423             432

S  D  E  Q  L  K  S  G  T  A  S  V  V  C  L  L  N  N  F  Y  P
TCT GAT GAG CAG TTG AAA TCT GGA ACT GCC TCT GTT GTG TGC CTG CTG AAT AAC TTC TAT CCC
   441             450             459             468             477             486             495

R  E  A  K  V  Q  W  K  V  D  N  A  L  Q  S  G  N  S  Q  E  S
AGA GAG GCC AAA GTA CAG TGG AAG GTG GAT AAC GCC CTC CAA TCG GGT AAC TCC CAG GAG AGT
   504             513             522             531             540             549             558

V  T  E  Q  D  S  K  D  S  T  Y  S  L  S  S  T  L  T  L  S  K
GTC ACA GAG CAG GAC AGC AAG GAC AGC ACC TAC AGC CTC AGC AGC ACC CTG ACG CTG AGC AAA
   567             576             585             594             603             612             621

A  D  Y  E  K  H  K  V  Y  A  C  E  V  T  H  Q  G  L  S  S  P
GCA GAC TAC GAG AAA CAC AAA GTC TAC GCC TGC GAA GTC ACC CAT CAG GGC CTG AGC TCG CCC
   630             639             648             657             666             675             684

V  T  K  S  F  N  R  G  E  C
GTC ACA AAG AGC TTC AAC AGG GGA GAG TGT TGA
   693             702             711             720
  
```

FIGURE 4b

Length of 7B6 heavy/Primatized: 1437 bp; Listed from: 1 to: 1437;  
 Translated from: 1 to: 1435 (Entire region);  
 Genetic Code used: Universal; Fri, May 26, 1995 11:09 AM

name 1	M	G	W	S	L	I	L	L	F	L	V	A	V	A	T	R	V	Q	C		
	ATG	GGT	TGG	AGC	CTC	ATC	TTG	CTC	TTC	CTT	GTC	GCT	GTT	GCT	ACG	CGT	GTC	CAG	TGT		
			9			18			27			36			45			54			
:	V	Q	L	V	E	S	G	G	G	L	V	Q	P	G	G	S	L	R	V	S	
	GTG	CAA	CTG	GTG	GAG	TCT	GGG	GGA	GGC	TTG	GTC	CAG	CCT	GGC	GGG	TCC	CTG	AGA	GTC	TCC	
	63			72			81			90			99			108			117		
:	A	V	S	G	F	T	F	S	D	H	Y	M	Y	W	F	R	Q	A	P	G	
	GCA	GTC	TCT	GGA	TTC	ACC	TTC	AGT	GAC	CAC	TAC	ATG	TAT	TGG	TTC	CGC	CAG	GCT	CCA	GGG	
	126			135			144			153			162			171			180		
K	G	P	E	W	V	G	F	I	R	N	K	P	N	G	G	T	T	E	Y	A	
	GGG	CCG	GAA	TGG	GTA	GGT	TTC	ATT	AGA	AAC	AAA	CCG	AAC	GGT	GGG	ACA	ACA	GAA	TAC	GCC	
	189			198			207			216			225			234			243		
A	S	V	K	D	R	F	T	I	S	R	D	D	S	K	S	I	A	Y	L	Q	
	GCG	TCT	GTG	AAA	GAC	AGA	TTC	ACC	ATC	TCC	AGA	GAT	GAT	TCC	AAA	AGC	ATC	GCC	TAT	CTG	CAA
	252			261			270			279			288			297			306		
M	S	S	L	K	I	E	D	T	A	V	Y	Y	C	T	T	S	Y	I	S	H	
	ATG	AGC	AGC	CTG	AAA	ATC	GAG	GAC	ACG	GCC	GTC	TAT	TAC	TGT	ACT	ACA	TCC	TAC	ATT	TCA	CAT
	315			324			333			342			351			360			369		
C	R	G	G	V	C	Y	G	G	Y	F	E	F	W	G	Q	G	A	L	V	T	
	TGT	GGG	GGT	GGT	GTC	TGC	TAT	GGA	GGT	TAC	TTC	GAA	TTC	TGG	GGC	CAG	GGC	GCC	CTG	GTC	ACC
	378			387			396			405			414			423			432		
V	S	S	A	S	T	K	G	P	S	V	F	P	L	A	P	S	S	K	S	T	
	GTC	TCC	TCA	GCT	AGC	ACC	AAG	GGC	CCA	TGC	GTC	TTC	CCC	CTG	GCA	CCC	TCC	TCC	AAG	AGC	ACC
	441			450			459			468			477			486			495		
S	G	G	T	A	A	L	G	C	L	V	K	D	Y	F	P	E	P	V	T	V	
	TCT	GGG	GGC	ACA	GCG	GCC	CTG	GGC	TGC	CTG	GTC	AAG	GAC	TAC	TTC	CCC	GAA	CCG	GTG	ACG	GTG
	504			513			522			531			540			549			558		
S	W	N	S	G	A	L	T	S	G	V	H	T	F	P	A	V	L	Q	S	S	
	TCG	TGG	AAC	TCA	GGC	GCC	CTG	ACC	AGC	GGC	GTG	CAC	ACC	TTC	CCG	GCT	GTC	CTA	CAG	TCC	TCA
	567			576			585			594			603			612			621		
G	L	Y	S	L	S	S	V	V	T	V	P	S	S	S	L	G	T	Q	T	Y	
	GGA	CTC	TAC	TCC	CTC	AGC	AGC	GTG	GTG	ACC	GTG	CCC	TCC	AGC	AGC	TTG	GGC	ACC	CAG	ACC	TAC
	630			639			648			657			666			675			684		
I	C	N	V	N	H	K	P	S	N	T	K	V	D	K	K	A	E	P	K	S	
	ATC	TGC	AAC	GTG	AAT	CAC	AAG	CCC	AGC	AAC	ACC	AAG	GTG	GAC	AAG	AAA	GCA	GAG	CCC	AAA	TCT
	693			702			711			720			729			738			747		
C	D	K	T	H	T	C	P	P	C	P	A	P	E	L	L	G	G	P	S	V	
	TGT	GAC	AAA	ACT	CAC	ACA	TGC	CCA	CCG	TGC	CCA	GCA	CCT	GAA	CTC	CTG	GGG	GGA	CCG	TCA	GTC
	756			765			774			783			792			801			810		
F	L	F	P	P	K	P	K	D	T	L	M	I	S	R	T	P	E	V	T	C	
	TTC	CTC	TTC	CCC	CCA	AAA	CCC	AAG	GAC	ACC	CTC	ATG	ATC	TCC	CGG	ACC	CCT	GAG	GTC	ACA	TGC
	819			828			837			846			855			864			873		
V	V	V	D	V	S	H	E	D	P	E	V	K	F	N	W	Y	V	D	G	V	
	GTG	GTG	GTG	GAC	GTG	AGC	CAC	GAA	GAC	CCT	GAG	GTC	AAG	TTC	AAC	TGG	TAC	GTG	GAC	GGC	GTG
	882			891			900			909			918			927			936		

FIGURE 4b (Continued)

E V H N A K T K P R E E Q Y N S T Y R V V  
 GAG GTG CAT AAT GCC AAG ACA AAG CCG CGG GAG GAG CAG TAC AAC AGC ACG TAC CGT GTG GTC  
 945 954 963 972 981 990 999

S V L T V L H Q D W L N G K E Y K C K V S  
 AGC GTC CTC ACC GTC CTG CAC CAG GAC TGG CTG AAT GGC AAG GAG TAC AAG TGC AAG GTC TCC  
 1008 1017 1026 1035 1044 1053 1062

N K A L P A P I E K T I S K A K G Q P R E  
 AAC AAA GCC CTC CCA GCC CCC ATC GAG AAA ACC ATC TCC AAA GCC AAA GGG CAG CCC CGA GAA  
 1071 1080 1089 1098 1107 1116 1125

P Q V Y T L P P S R D E L T K N Q V S L T  
 CCA CAG GTG TAC ACC CTG CCC CCA TCC CGG GAT GAG CTG ACC AAG AAC CAG GTC AGC CTG ACC  
 1134 1143 1152 1161 1170 1179 1188

C L V K G F Y P S D I A V E W E S N G Q P  
 TGC CTG GTC AAA GGC TTC TAT CCC AGC GAC ATC GCC GTG GAG TGG GAG AGC AAT GGG CAG CCG  
 1197 1206 1215 1224 1233 1242 1251

E N N Y K T T P P V L D S D G S F F L Y S  
 GAG AAC AAC TAC AAG ACC ACG CCT CCC GTG CTG GAC TCC GAC GGC TCC TTC TTC CTC TAC AGC  
 1260 1269 1278 1287 1296 1305 1314

K L T V D K S R W Q Q G N V F S C S V M H  
 AAG CTC ACC GTG GAC AAG AGC AGG TGG CAG CAG GGG AAC GTC TTC TCA TGC TCC GTG ATG CAT  
 1323 1332 1341 1350 1359 1368 1377

E A L H N H Y T Q K S L S L S P G K  
 GAG GCT CTG CAC AAC CAC TAC ACG CAG AAG AGC CTC TCC CTG TCT CCG GGT AAA TGA  
 1386 1395 1404 1413 1422 1431



FIGURE 5a

Length of 16C10 Lambda/Primatized : 711 bp;

Listed from: 1 to: 711;

Translated from: 1 to: 709 (Entire region);

Genetic Code used: Universal; Fri, May 26, 1995 11:08 AM

```

Frame 1  M  R  V  P  A  Q  L  L  G  L  L  L  L  W  L  P  G  A  R
          ATG AGG GTC CCC GCT CAG CTC CTG GGG CTC CTG CTC CTC TGG CTC CCA GGT GCA CGA
              9              18              27              36              45              54

C  E  S  V  L  T  Q  P  P  S  V  S  G  A  P  G  Q  K  V  T  I
TGT GAG TCT GTC CTG ACA CAG CCG CCC TCA GTG TCT GGG GCC CCA GGG CAG AAG GTC ACC ATC
    63          72          81          90          99          108          117

S  C  T  G  S  T  S  N  I  G  G  Y  D  L  H  W  Y  Q  Q  L  P
TCG TGC ACT GGG AGC ACC TCC AAC ATT GGA GGT TAT GAT CTA CAT TGG TAC CAG CAG CTC CCA
    126          135          144          153          162          171          180

G  T  A  P  K  L  L  I  Y  D  I  N  K  R  P  S  G  I  S  D  R
GGA ACG GCC CCC AAA CTC CTC ATC TAT GAC ATT AAC AAG CGA CCC TCA GGA ATT TCT GAC CGA
    189          198          207          216          225          234          243

F  S  G  S  K  S  G  T  A  A  S  L  A  I  T  G  L  Q  T  E  D
TTC TCT GGC TCC AAG TCT GGT ACC GCG GCC TCC CTG GCC ATC ACT GGG CTC CAG ACT GAG GAT
    252          261          270          279          288          297          306

E  A  D  Y  Y  C  Q  S  Y  D  S  S  L  N  A  Q  V  F  G  G  G
GAG GCT GAT TAT TAC TGC CAG TCC TAT GAC AGC AGC CTG AAT GCT CAG GTA TTC GGA GGA GGG
    315          324          333          342          351          360          369

T  R  L  T  V  L  G  Q  P  K  A  A  P  S  V  T  L  F  P  P  S
ACC CGG CTG ACC GTC CTA GGT CAG CCC AAG GCT GCC CCC TCG GTC ACT CTG TTC CCG CCC TCC
    378          387          396          405          414          423          432

S  E  E  L  Q  A  N  K  A  T  L  V  C  L  I  S  D  F  Y  P  G
TCT GAG GAG CTT CAA GCC AAC AAG GCC ACA CTG GTG TGT CTC ATA AGT GAC TTC TAC CCG GGA
    441          450          459          468          477          486          495

A  V  T  V  A  W  K  A  D  S  S  P  V  K  A  G  V  E  T  T  T
GCC GTG ACA GTG GCC TGG AAG GCA GAT AGC AGC CCC GTC AAG GCG GGA GTG GAG ACC ACC ACA
    504          513          522          531          540          549          558

P  S  K  Q  S  N  N  K  Y  A  A  S  S  Y  L  S  L  T  P  E  Q
CCC TCC AAA CAA AGC AAC AAC AAG TAC GCG GCC AGC AGC TAC CTG AGC CTG ACG CCT GAG CAG
    567          576          585          594          603          612          621

W  K  S  H  R  S  Y  S  C  Q  V  T  H  E  G  S  T  V  E  K  T
TGG AAG TCC CAC AGA AGC TAC AGC TGC CAG GTG ACG CAT GAA GGG AGC ACC GTG GAG AAG ACA
    630          639          648          657          666          675          684

V  A  P  T  E  C  S
GTG GCC CCT ACA GAA TGT TCA TGA
    693          702          711

```

FIGURE 5b

Length of 16C10 heavy/primatized: 1431 bp;  
 Listed from: 1 to: 1431;  
 Translated from: 1 to: 1429 (Entire region);  
 Genetic Code used: Universal; Fri, May 26, 1995 11:08 AM

```

Frame 1  M  K  H  L  W  F  F  L  L  L  V  A  A  P  R  W  V  L  S
          ATG AAA CAC CTG TGG TTC TTC CTC CTC GTG GCA GCT CCC AGA TGG GTC CTG TCC
                9                18                27                36                45                54

Q  V  Q  L  Q  E  S  G  P  G  L  V  K  P  S  E  T  L  S  L  T
CAG GTG CAG CTG CAG GAG TCG GGC CCA GGA CTG GTG AAG CCT TCG GAG ACC CTG TCC CTC ACC
    63                72                81                90                99                108                117

C  A  V  S  G  G  S  I  S  G  G  Y  G  W  G  W  I  R  Q  P  P
TGC GCT GTC TCT GGT GGC TCC ATC AGC GGT GGT TAT GGC TGG GGC TGG ATC CGC CAG CCC CCA
    126                135                144                153                162                171                180

G  K  G  L  E  W  I  G  S  F  Y  S  S  S  G  N  T  Y  Y  N  P
GGG AAG GGG CTG GAG TGG ATT GGG AGT TTC TAT AGT AGT AGT GGG AAC ACC TAC TAC AAC CCC
    189                198                207                216                225                234                243

S  L  K  S  Q  V  T  I  S  T  D  T  S  K  N  Q  F  S  L  K  L
TCC CTC AAG AGT CAA GTC ACC ATT TCA ACA GAC ACG TCC AAG AAC CAG TTC TCC CTG AAG CTG
    252                261                270                279                288                297                306

N  S  M  T  A  A  D  T  A  V  Y  Y  C  V  R  D  R  L  F  S  V
AAC TCT ATG ACC GCC GCG GAC ACG GCC GTG TAT TAC TGT GTG AGA GAT CGT CTT TTT TCA GTT
    315                324                333                342                351                360                369

V  G  M  V  Y  N  N  W  F  D  V  W  G  P  G  V  L  V  T  V  S
GTT GGA ATG GTT TAC AAC AAC TGG TTC GAT GTC TGG GGC CCG GGA GTC CTG GTC ACC GTC TCC
    378                387                396                405                414                423                432

S  A  S  T  K  G  P  S  V  F  P  L  A  P  S  S  K  S  T  S  G
TCA GCT AGC ACC AAG GGC CCA TCG GTC TTC CCC CTG GCA CCC TCC TCC AAG AGC ACC TCT GGG
    441                450                459                468                477                486                495

G  T  A  A  L  G  C  L  V  K  D  Y  F  P  E  P  V  T  V  S  W
GGC ACA GCG GCC CTG GGC TGC CTG GTC AAG GAC TAC TTC CCC GAA CCG GTG ACG GTG TCG TGG
    504                513                522                531                540                549                558

N  S  G  A  L  T  S  G  V  H  T  F  P  A  V  L  Q  S  S  G  L
AAC TCA GGC GCC CTG ACC AGC GGC GTG CAC ACC TTC CCG GCT GTC CTA CAG TCC TCA GGA CTC
    567                576                585                594                603                612                621

Y  S  L  S  S  V  V  T  V  P  S  S  S  L  G  T  Q  T  Y  I  C
TAC TCC CTC AGC AGC GTG GTG ACC GTG CCC TCC AGC AGC TTG GGC ACC CAG ACC TAC ATC TGC
    630                639                648                657                666                675                684

N  V  N  H  K  P  S  N  T  K  V  D  K  K  A  E  P  K  S  C  D
AAC GTG AAT CAC AAG CCC AGC AAC ACC AAG GTG GAC AAG AAA GCA GAG CCC AAA TCT TGT GAC
    693                702                711                720                729                738                747

K  T  H  T  C  P  P  C  P  A  P  E  L  L  G  G  P  S  V  F  L
AAA ACT CAC ACA TGC CCA CCG TGC CCA GCA CCT GAA CTC CTG GGG GGA CCG TCA GTC TTC CTC
    756                765                774                783                792                801                810

F  P  P  K  P  K  D  T  L  M  I  S  R  T  P  E  V  T  C  V  V
TTC CCC CCA AAA CCC AAG GAC ACC CTC ATG ATC TCC CGG ACC CCT GAG GTC ACA TGC GTG GTG
    819                828                837                846                855                864                873

V  D  V  S  H  E  D  P  E  V  K  F  N  W  Y  V  D  G  V  E  V
GTG GAC GTG AGC CAC GAA GAC CCT GAG GTC AAG TTC AAC TGG TAC GTG GAC GGC GTG GAG GTG
  
```

FIGURE 5b (Continued)

882	891	900	909	918	927	936
H N A K T K P R E E Q Y N S T Y R V V S V						
CAT AAT GCC AAG ACA AAG CCG CGG GAG GAG CAG TAC AAC AGC ACG TAC CGT GTG GTC AGC GTC						
945	954	963	972	981	990	999
L T V L H Q D W L N G K E Y K C K V S N K						
CTC ACC GTC CTG CAC CAG GAC TGG CTG AAT GGC AAG GAG TAC AAG TGC AAG GTC TCC AAC AAA						
1008	1017	1026	1035	1044	1053	1062
A L P A P I E K T I S K A K G Q P R E P Q						
GCC CTC CCA GCC CCC ATC GAG AAA ACC ATC TCC AAA GCC AAA GGG CAG CCC CGA GAA CCA CAG						
1071	1080	1089	1098	1107	1116	1125
V Y T L P P S R D E L T K N Q V S L T C L						
GTG TAC ACC CTG CCC CCA TCC CGG GAT GAG CTG ACC AAG AAC CAG GTC AGC CTG ACC TGC CTG						
1134	1143	1152	1161	1170	1179	1188
V K G F Y P S D I A V E W E S N G Q P E N						
GTC AAA GGC TTC TAT CCC AGC GAC ATC GCC GTG GAG TGG GAG AGC AAT GGG CAG CCG GAG AAC						
1197	1206	1215	1224	1233	1242	1251
N Y K T T P P V L D S D G S F F L Y S K L						
AAC TAC AAG ACC ACG CCT CCC GTG CTG GAC TCC GAC GGC TCC TTC TTC CTC TAC AGC AAG CTC						
1260	1269	1278	1287	1296	1305	1314
T V D K S R W Q Q G N V F S C S V M H E A						
ACC GTG GAC AAG AGC AGG TGG CAG CAG GGG AAC GTC TTC TCA TGC TCC GTG ATG CAT GAG GCT						
1323	1332	1341	1350	1359	1368	1377
L H N H Y T Q K S L S L S P G K .						
CTG CAC AAC CAC TAC ACG CAG AAG AGC CTC TCC CTG TCT CCG GGT AAA TGA						
1386	1395	1404	1413	1422	1431	

Figure 6

Competitive Binding of CTLA-4Ig-Biotin to B7-1 Transfected CHO Cells in Presence of P16C10 MA b, CTLA-4Ig and B7-1Ig Fusion Proteins

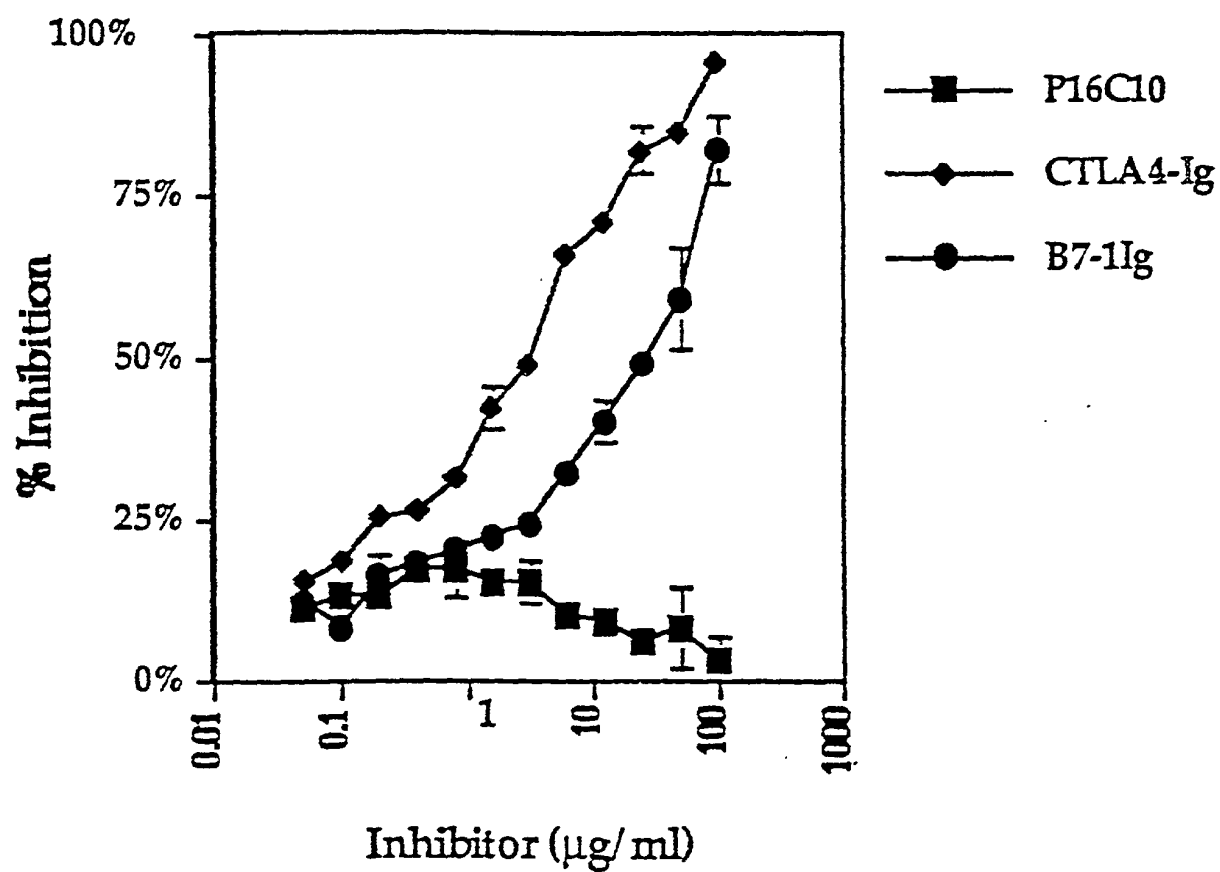


Figure 7

Competitive Binding of P16C10-Biotin to B7-1 Transfected CHO Cells  
in Presence of P16C10 MAb, CTLA-4Ig and B7-1Ig Fusion Proteins

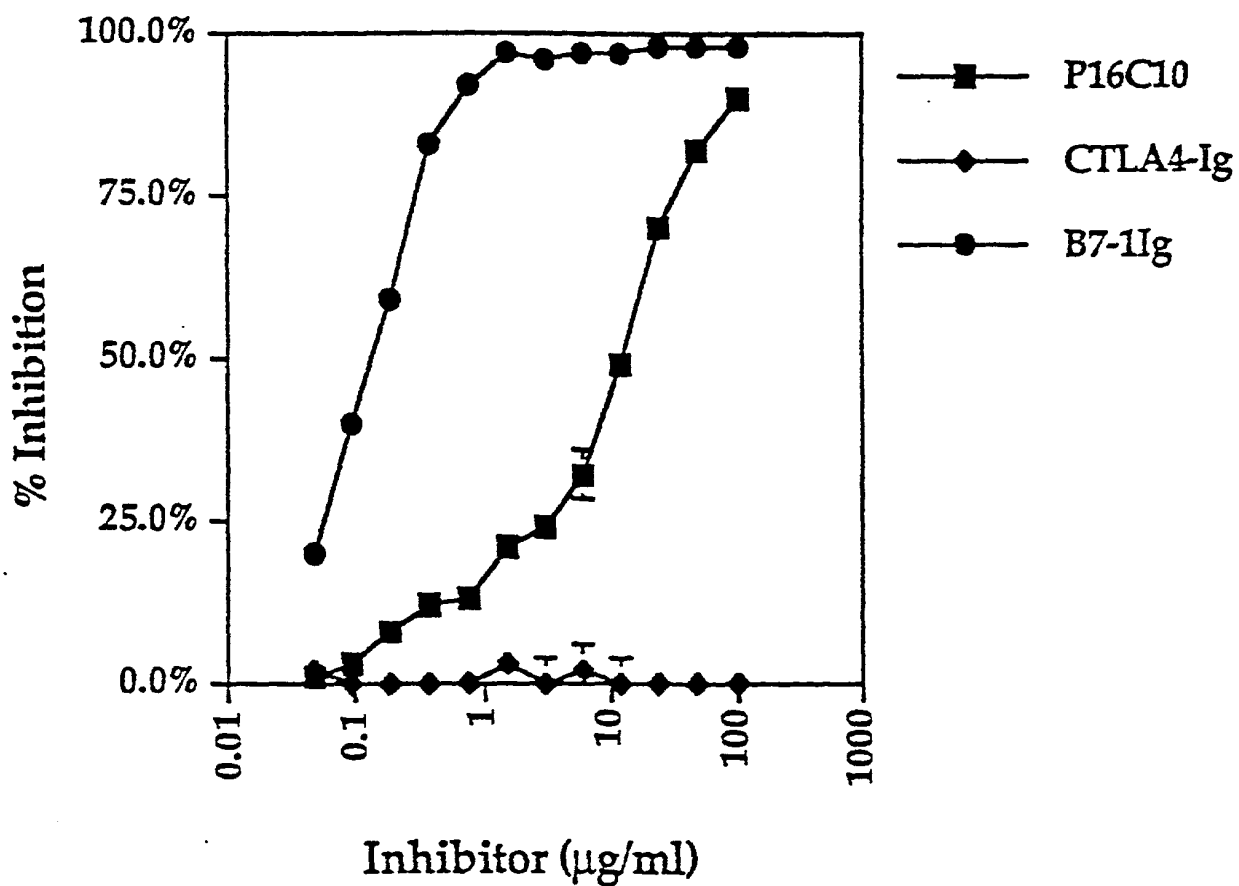


Figure 8

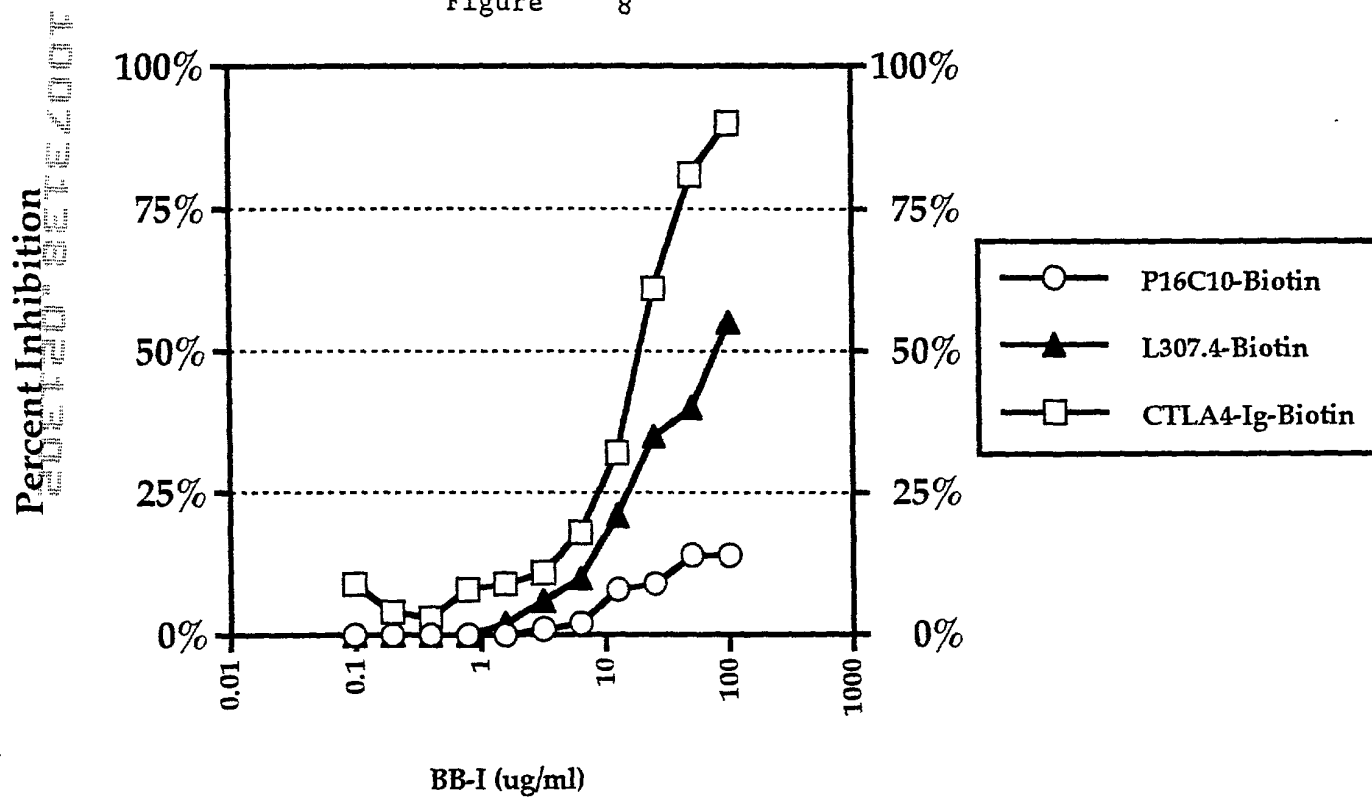


Figure 9

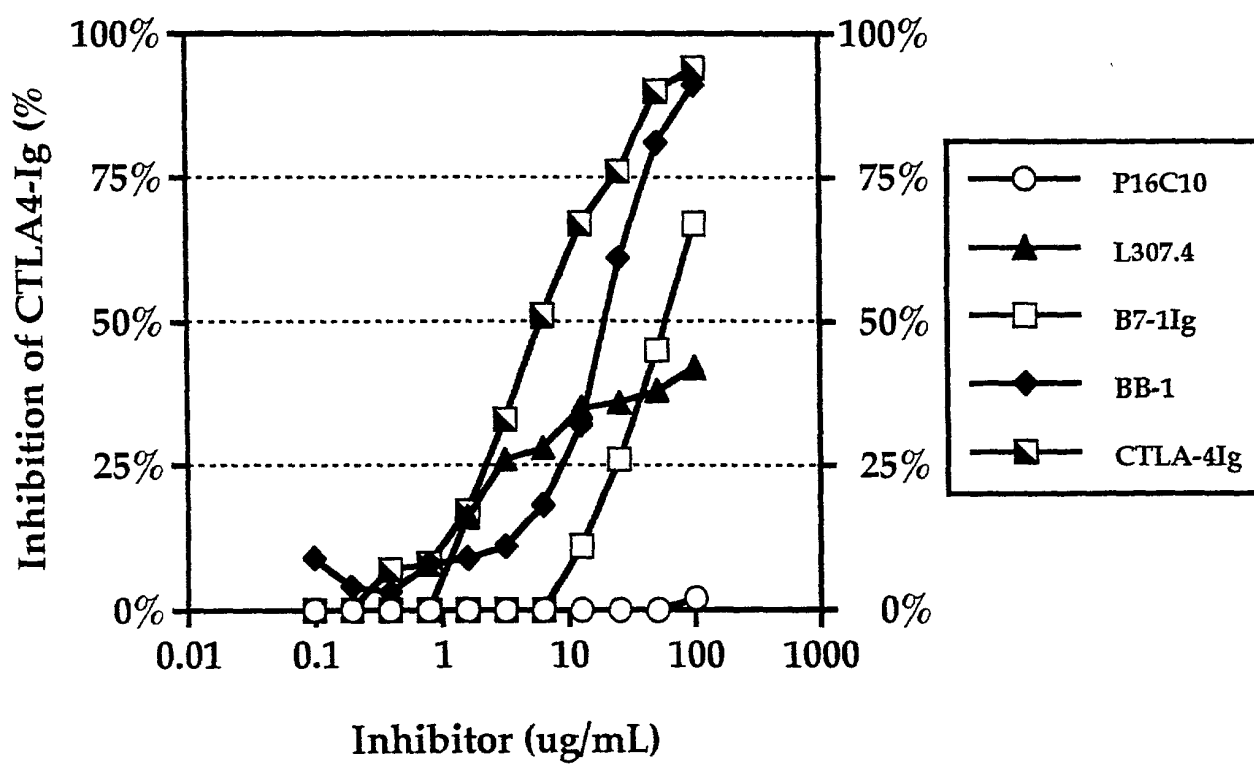


Figure 10

Competitive Inhibition of Radiolabeled B7-1Ig Binding to CD28 Receptors on Isolated Non-Activated Peripheral Blood T Cells using Unlabeled Binding Proteins Recognizing Either B7-1 or CD28

